

NOVEMBER/DECEMBER 2023

FAMB32 — BIO INSTRUMENTATION

Time : Three hours

Maximum : 75 marks



SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is Svedberg Unit?
2. Define Centrifugation.
3. Define Cuvette.
4. Expand NMR.
5. Who Coined the term Chromatography?
6. Define Adsorbents.
7. Define P^H .
8. Who Coined the term Electrophoresis?
9. What is the Half life for C^{14} element?
10. Expand GM.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the principle of Centrifugation.

Or

- (b) Write about the various types of Centrifuges.

12. (a) Explain the Beer-Lambert's Law.

Or

- (b) Define Infra-red spectroscopy. Write about the types of detectors used in IR.

13. (a) Give concise note on thin layer chromatography.

Or

- (b) Discuss briefly about Paper Chromatography technique.

14. (a) Write note on Ouchterlony test.

Or

- (b) Describe about Nucleic acid separation using electrophoresis.

15. (a) Write note on Biosensor.

Or

- (b) Comment on Scintillation counter.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Give an account on Ultra Centrifuge.

17. Discuss in detail the principle and Instrumentation of UV-VISIBLE Spectrophotometer.

18. Discuss the principle and applications of HPLC.

19. Discuss about SDS-PAGE.

20. Give elaborate account on Autoradiography.

